NATIONAL INTELLIGENCER.

ON THE DETERMINATION OF PHOSPHORIC ACID IN SOILS.

A Reply to Professor Booth's Article on the Practical Value of the Analysis of Soils. By CHAS. BICKELL, *Assistant State Chemist of Maryland. Read before the Baltimore Academy of Science and Arts, November 2, 1853.*

GENTLEMEN: The National Intelligencer of the 20th of August last contains an article, just read before you, on the Practical Value of the Analysis of Soils, by JAMES E. BOOTH, the well-known Professor of Philadelphia, in which the practical worthlessness of the analysis of soils is sought to be shown; or, in other words, in which a structure is sought to be destroyed that science has for more than twenty years zealously endeavored to erect, and the strong and durable foundation of which is sustained not only by the experience of a Berzelius, Liebig, Rose, Way, and others, but also will be proved by our own, if we take the trouble of investigating the subject.

The relation between the physiology of plants and their culture, in its practical use and importance to the farmer, is, according to Prof. BOOTH, totally destroyed; for, although we are enabled to indicate with certainty the substances and their quantity which a crop extracts from the soil, we are nevertheless unable to know whether a soil contains these parts, and whether their quantity is sufficient to produce another crop. This is the assertion of Prof. BOOTH, which he pronounces indirectly in the three ensuing sections of his article:

1. It is impossible to procure a fair average of a soil for examination.

2. Supposed a fair sample could be obtained, then the present advancement of science is not such as to enable the making of a correct analysis.

3. Supposed an analysis could be made, then the expenses connected with it would be so enormous that it would be of no practical value to the farmer.

At the end of a very hasty and imperfect argument to demonstrate the truth of these assertions, Prof. Booth finally expresses the sweet hope that the time would come when analytical chemistry would be, in its continual improvement, so far progressed that experiments of this sort may be made with satisfactory correctness, and when we shall find the verification of this sentiment:

"The desert shall blossom as the rose."

Even if we suppose Prof. Booth's opinion to be established as a sad truth, we cannot refrain from recognising in the philosophy of the words, so boldly pronounced by him, nothing but the effusion of a mind which has been, in the multiplicity of its investigations, but little directed to the subject on which he writes. We need not to be told that our knowledge is far from being perfect, and that we must strive for perfection; we are all aware that this refers to all our actions. It is undoubtedly a more advisable and better occupation for our mind to draw as much profit as possible out of what we have established as truth, and apply it to the advantage of the present time; or, in opening a new field of observations and exploring it, we are compelled to apprize the world indirectly that we have been wrapped up heretofore in error.

Prof. Booth proceeds on another principle. In the above-mentioned article, which is a transcript of his address to the Philadelphia Society for the Promotion of Agriculture, he depicts the present condition of analytical chemistry in the most deplorable manner, and comes finally to the conclusion that both our methods of analysys and our balances must be perfected before we can think of a satisfactory solution of the existing difficulties.

This solution leaves Prof. Booth to time, which in all probability will greatly postpone his future plans. With regard to a greater refinement or perfection of the balances at present in use, Mr. Jones, as well as any one else acquainted with mechanism, will be able to designate the limit of this perfection, and see at once that we have already reached that limit. This limit lies in the nature of the thing itself, viz. that the sensibility of a balance increases with the length of the beam and decreases in proportion to the weight of the beam.

If we were to apply long beams, we would, in accordance with this principle, find that they must lose, on account of their necessary lightness, their equally necessary inflexibility, not to say aught of their impracticability for common use.

The future consequently does not promise us many remedies in this respect, and Prof. Booth will, of course, sooner or later, find himself disappointed in his hopes, unless he might have placed them on steam, electric or magnetic balances, yet to be constructed.

In the same manner resources to the performances of chemical analysis are limited, as we are here solely dependant on the nature of substances. If it lies in the nature of a substance, e. g. of potash, to form characteristic precipitations only with a few substances, (called reagents,) which are not even distinguished by their great insolubility, neither nature nor any mortal man is able to give to the potash other qualities, for potash with other qualities ceases to be potash.

Prof. Booth should not expect too much from the future. It would be much better for him, especially in this matter, to cling to what the moment offers, as it answers perfectly the purpose which we require. Here, now, I return to the point from which I digressed and which I have made the object of my discussion; that is, the practical refutation of Prof. Booth's assertions. It would carry me too far if I were to comment upon every sentence of his article, and would also become uninteresting to the audience, or a portion of it.

I have the intention to express my views with regard to the analysis of soils from time to time before this assembly, and I shall do so, beginning at the earliest opportunity, in as suitable and concise a manner as possible. To-night I will confine myself to treat upon the analytical determination of a substance in soils, which is decried by Prof. Booth as impracticable, viz. the determination of phosphoric acid. Prof. Booth says as follows about it:

"There is a confirmatory argument against the practical value of soil-analysis, which has been so clearly set up by Major J. F. Lee, of Washington, that I take the liberty of quoting his letter to me on the subject:

"'We know that on all poor land of proper texture the application of 200 lbs. of guano to the acre will produce fair crops of grain and roots. And this is the difference between a barren and tolerably fertile soil. Now, this guano applies only 6 lbs. of potash, 24 lbs. of phosphoric acid, and 34 lbs. of ammonia. But the acre contains 3,920,000 lbs. of soil, (to the depth of a foot.) Can analysis now, or will it in any progress we may reasonably expect it to make, ascertain one part of potash in 600,000 parts of foreign matter, or one part of phosphoric acid in 150,000 parts of foreign matter, or one part of ammonia in 100,000?'

"It may be answered, without the slightest fear of contradiction, that such determinations are greatly beyond the present power of chemical analysis. Whether they will continue as I shall presently inquire; but the argument is strong against the present value of analysis applied to soils."

These numbers are truly enormous, and every farmer, every man of common education, will be obliged, in perusing the above, to concur with Prof. Booth's views, and, may it be only, because they are communicated to him out of the depth of a mysterious chemical laboratory by a distinguished Professor. To the man of clear scientifical observations, however, large numbers are not foreign, and he only astounds or is terrified by them when they disappear out of reach of comparison.

The numbers, as mentioned by Prof. Booth, however great they may appear at first sight, are but fragments of numbers as they are constantly applied in the daily life of chemists; for the chemist is accustomed to precipitate and to recognise even one-millionth part of oxide of baryta in solution by means of sulphuric acid, or by nitrate of silver yet one-millionth of hydro-chloric acid, by hydro-chloric acid yet one-millionth of bromine, by oxalic acid 1-100,000th of lime, &c.

Most of the numerous other reagents, commonly applied, indicate even 1-50,000th, 1-10,000th of the respective substances for the recognition of which they are applied. With regard to the above-mentioned phosphoric acid, chemists have been, quite contrary to the assertions of Prof. Booth, very successful in finding reagents which lead to the detection of even the smallest quantities of phosphoric acid, mixed with the most varied foreign matters.

Of the different methods applied to the present day, however accurate and satisfactory they all have proved to be, that which Svamberg and Struve have first presented, and by which phosphoric acid is detected by molybdate of ammonia, is distinguished as the most advantageous for the application on soils, furnishing indisputably the most exact results of all, and requiring, beside little skill, the least time. Not mentioning others, I return, therefore, exclusively to the latter most important method, which I will lay in the most minute details before the society, guided solely and alone by observations made in a practical manner, in common with Dr. Higgins, in the Laboratory of the State of Maryland.

As at first, to the preparation of the molybdate of ammonia, it is most commonly made from the natural sulphuret of molybdenum. This is to be pulverized, or, on account of its toughness, ground to powder, and then to be exposed to the air heated and constantly stirred; sulphurous acid will then escape and molybdic acid be left behind. To prevent the melting or escaping of the latter the heat must be moderate, most especially towards the end of the process. The residue is digested for some time with ammonia, which dissolves the molybdic acid, whilst undecomposed sulphuret of molybdenum, quartz, and other substances remain. The filtrate evaporated, and, if necessary, once more filtrated, then boiled and mixed, when yet hot, with strong ammonia, will, by cooling, leave crystals of molybdate of ammonia.

A concentrated solution of these crystals in water furnishes the above-mentioned reagent.

The effect of the molybdate of ammonia on phosphoric acid and its salts in a solution which has been acidulated by nitric acid manifests itself first in the forming of a white precipitate of molybdic acid, which is redissolved, however, in the excess of nitric acid present. The liquid then assumes a yellow color and deposites a yellow precipitate of a crystalline structure, the formation of which is accelerated by heating.

This precipitate consists of about three per cent. of phosphoric acid, a very small quantity of ammonia, and, taking the whole rest, of molybdic acid, which are united to each other in a manner yet doubtful. It is easily soluble in ammonia and an excess of phosphates; insoluble, however, in hydrochloric or nitric acid.

These conditions demonstrate at once that the application of this method is especially appropriated to the tracing of small quantities of phosphoric acid, as in soils. In this case no excess of phosphates, in which the formed precipitate could be dissolved, is to be feared, nor the danger to overlook a precipitate, which consists in its whole quantity of substances used for precipitation, with a small portion of the substance which is the object in search.

Direct experiments to test the sensibility of this reagent were made, and the following results obtained:

By dissolving 5 grammes of crystallized phosphate of soda, which contain 1 gramme of phosphoric acid, in 25 grammes of water, a solution was obtained which contained in all its parts 1-30th of its weight of phosphoric acid.

With this normal-liquid different other solutions (weighing about an ounce) were then made by diluting the former with water and a suitable quantity of nitric acid, the respective contents of phosphoric acid of which were 1-300th, 1-3,000th, 1-6,000th, 1-12,000th, 1-24,000th, 1-48,000th, 1-96,000th, 1-192,000th.

After molybdate of ammonia being added and the whole heated, 1-48,000th or 1-50,000th of the dilution created a distinctly visible precipitate. The 1-96,000th dilution formed after a few days a little precipitate, which did not appear at the 1-192,000th dilution.

Experiments performed in the same mode, differing only with regard to the normal-liquid, which was diluted with a concentrated solution of a soil (which did not contain an appreciable quantity of phosphoric acid) in nitric acid, instead of with acidulated water, lead exactly to the same results. 1-48,000th or 1-50,000th dilution caused immediately a distinct precipitation, 1-92,000th after a few days, and 1-192,000 none at all.

Organic matter, iron, clay, lime, and all those substances which are extracted by the aid of nitric acid from the soil, had exercised not the least influence on this reaction.

After these advanced remarks, the last but most important point to be considered is finally the manner in which the above-mentioned results of observations can be applied for the recognition and the quantitative determination of the phosphoric acid in soils as distinctly as the farmer needs knowing it.

The solution of this point leaves now hardly any difficulties.

We know by analyses of Gregory, Way, Boussingault, and Liebig that a wheat crop of 32 bushels, at 62 lbs., contains of—

Grain 1,984 lbs.,	containing of phosphoric acid		19.0 lbs.
Straw 3,360 lbs.	"	"	5.4 lbs.
Chaff 400 lbs.	"	"	2.1 lbs.
	Total amount of phosphoric acid		26.5 lbs.

If we now take a crop of 32 bushels at 62 lbs. for an average crop, which a wheat soil ought to produce, and to which any wheat soil can be improved, then it is necessary, as above mentioned, that it must contain at least 26.5 lbs., or, we will say, 30 lbs. of phosphoric acid, if it shall be able to produce the average crop.

The weight of an average acre of soil one foot deep is 3,000 tons, or 6,000,000 pounds, according to the mean specific gravity of sixteen varieties of soil dried in the air, as ascertained by Dr. Krocker, which was 2.44, (and not 3,920,000 lbs., as stated by Major J. F. Lee—Prof. Booth's authority.)

These two statements show us at once the way in which soils ought to be treated for detecting the presence and at the same time the approximate quantity of phosphoric acid in them. If 3,000 tons or 6,000,000 lbs. of soil (one acre) ought to contain 30 lbs. of phosphoric acid to produce a fair crop of wheat, then every part of this mass ought to contain 1-200,000th of phosphoric acid; or, if we dissolve the phosphoric acid in a certain quantity of earth by a solvent of equal weight, the obtained solution will also contain 1-200,000th of phosphoric acid, or by evaporating it to 1-4th a solution will be obtained which contains 1-50,000th of phosphoric acid, an amount which can be detected by molybdate of ammonia, as above stated.

For soils the most convenient quantity of earth to be taken for analysis is about 3-4ths of a pound, which is to be treated with the same quantity of water, acidulated with nitric acid, and to be heated in a water-bath for some time. The solution ought to be filtrated, evaporated to 1-4th, filtrated again, (then about one ounce is left,) and tested by molybdate of ammonia. If a visible precipitation takes place, then 30 lbs. of phosphoric acid exist at least in the examined soil—60 lbs. of phosphoric acid, if evaporated to one-half; 90 lbs. of phosphoric acid, if evaporated to 3-4ths; 100 lbs of phosphoric acid, if not at all evaporated, and so on.

The whole process takes, if performed in practice, about two hours, in which time several different soils can be treated in the same way at once; of course a time which will not be too costly for the chemist.

SPIRITUALISM.

FROM THE TROY WHIG.

We have before stated that the "spiritualists" in this city hold regular meetings at the Tabernacle on Fulton street on Sundays, afternoon and evening. Last Sunday afternoon quite a large and respectable audience listened to a sermon from Mr. Chase, a preacher of the "Harmonial Philosophy," the term by which believers of this faith most delight to characterize it. The preacher selected for his text the command "Love one another." The discourse was not remarkable for any peculiarity of doctrine it inculcated, and might have been delivered in any church without exciting remark. The main idea was that love and sympathy, under Providence, were the great elements which controlled the world, and that their influence were seen and felt not only in those things which pertain to human affairs, but even in the animal and vegetable creations. Commencing with the lowest, and learning, as we are commanded to do, wisdom from the serpent, there was nothing in progression short of deity itself that the human soul might not bring into sympathy and congeniality with itself. The discourse did not lack ability or finish, and the preacher impressed his audience, we think, with the sincerity of his own convictions.

Of what followed the discourse, others will judge for themselves. We give the proceedings as they occurred:

MR. CHASE. "There is present a communication received yesterday from Andrew Jackson; as it is not long, perhaps it may as well be read. Received yesterday afternoon, was it not Brother ——?

[Hereupon a tall gentleman came forward and mounted the stage.]

STRANGER. "The communication I have was received by a circle in West Troy this forenoon."

And he proceeded to unroll several sheets of foolscap, and read.

There appeared to be a half dozen paragraphs, each commencing with "*By the great eternal law of progression,*" &c., such and such things had occurred and had been accomplished. Those who could make any thing out further of what professed to be "the communication from Andrew Jackson," were more fortunate than we, though we felt not a little anxiety to get a clear perception of the ideas of the great departed. The communication seemed to be an aggregation of words without meaning—"wise nonsense." The first four words, we all know, were great favorites of the General's while living. When he was fighting "Biddle and the Bank" he is said to have used them constantly. Why his communications from the other world should bear this unmistakable ear-mark of his old style, and yet as a whole utterly lack all of his wonted pith and directness—*vide* his veto messages—we will leave others to explain.

As these exhibitions and others take place publicly, there can be no objection to their detail in print. We would not speak lightly of the religious faith of any one, however lamentable and transparent their delusion may appear to be.

MRS. AMELIA OPIE, the authoress, the news of whose death was brought us by the last English steamer, was born in the year 1768. Her father was a Dr. Alderson, of Norwich, and in early life she was known as the pretty and clever Miss Alderson. She married Opie, the artist, May 15, 1798, and at his earnest solicitation turned her attention to authorship. Her husband died in 1807. During her married life she was the great attraction of a circle of distinguished persons in London, where she was much admired for her sweet singing. She withdrew from fashionable society in the time of George the Fourth, and was for the last twenty-five years of her life a consistent member of the Society of Friends.

A German named Heber, residing at New York, was brutally murdered in that city on Monday night. He had just left his residence when one of a gang of rowdies who were quarreling, supposing him to be an adversary, struck him with a cart rung, which killed him.

OFFICIAL.

By the President of the United States of America.

A PROCLAMATION.

Whereas it is provided by the second article of the Convention of the 16th of June, 1852, between the United States and Prussia, and other States of the Germanic Confederation, for the mutual delivery of criminals, fugitives from justice in certain cases, that the stipulations of that Convention shall be applied to any other State of the Germanic Confederation which might thereafter declare its accession thereto:

And whereas the Government of Wurtemberg has declared its accession to the said Convention, and has caused the said declaration to be lodged in the Department of State of the United States:

Now, therefore, be it known that I, FRANKLIN PIERCE, President of the United States of America, have caused this information to be made public, in order that the stipulations of the said convention may be observed and fulfilled with good faith in respect to the Government of Wurtemberg by the United States and the citizens thereof.

In witness whereof, I have hereunto set my hand, and caused the seal of the United States to be affixed.

[L. S.] Done at Washington, the twenty-seventh day of December, in the year of our Lord one thousand eight hundred and fifty-three, and of the independence of the United States the seventy-eighth.

FRANKLIN PIERCE.

By the President:
W. L. MARCY, Secretary of State.

DEPARTMENT OF STATE,
WASHINGTON, DECEMBER 29, 1853.

The following information has been received at this Department respecting the value of coin of the United States in the Macuquino currency of the island of Porto Rico, as established by an ordinance of the Spanish Government, under date of September 24, 1853:

Gold Coinage.

Double eagles	$21 25
Eagles	10 62½
Half eagles	5 31¼
Quarter eagles	2 65⅝
Tenth eagle	1 06¼

Silver Coinage.

Dollar	$1 12½
Half dollar	56¼
Quarter dollar	28⅛

The coins above mentioned are understood to be receivable at all the Government offices of the island, and declared a legal tender in circulation at the rates therein expressed.

NOTICE TO MARINERS.

The light-vessel stationed off Bowler's rock, in the Rappahannock river, will be removed from her position, in consequence of the closing of navigation by the ice, on the 2d proximo, (January.)

Due notice of the return of this vessel to her station will be given. By order of the Light-house Board.

A. M. PENNOCK,
Inspector Fifth Lighthouse District.

DECEMBER 24, 1853.

GOVERNMENT AID TO RAILROADS.

[BY DR. HARE.]

FOR THE NATIONAL INTELLIGENCER.

Agreeably to the Constitution of the United States Government, the duty of carrying the mails and providing for the national defence resides in the General Government exclusively, the public high roads being more or less subject to national control under that palladium of our existence as a nation.

Nevertheless the highways on which the mails are carried, and which during war would become military roads, are more or less under the control of a third party. I allude to the railway companies, who are entirely independent of the General Government, and, by the charters to which they owe their existence, to a greater or less extent independent of the State Governments by whom those charters have been granted.

But just at this time there is a favorable opportunity for the adoption of a general system, which should be mutually advantageous to the National Government, to the community, and likewise to the railway corporations which have been created by the States.

The Report of the Postmaster General shows that the Government has been subjected to what he considers as unreasonable exaction and unexpected disappointment in the carriage of mails by steamboats and railways. The community has likewise to lament the drowning, massacre, or mutilation of hundreds of human beings in consequence of the want of double tracks and deficiency of discipline in the control of masters, conductors, or engineers.

As the companies have not the means requisite for doubling their tracks, and as the community have a deep interest in having them doubled, were the Government to make offers on fair conditions of the necessary aid the railway companies could hardly avoid accepting the offer. It is conceived that the Government ought to act with great liberality towards the railway companies, as they have been of immense benefit to the country, and in few cases have these undertakings yielded the interest of the money to the stockholders.

The motives which have induced largesses to support the Collins line, so far as patriotic, ought to operate in favor of railways.

If the Government were simply to take stock or bonds, and reissue these securities with their endorsement, by giving currency to them, they would serve as a medium of exchange for large transactions, as bank capital, or as the means of raising money abroad, so as to be a substitute for the export of specie.

As a stockholder, or upon bonds, the Government might go so far as to furnish money or credit for the cost of one track for each railway, whether there shall be two tracks already laid down or one to be added.

This participation in the stock of railway companies, being a mode of contracting for the conveyance of the mails, would be quite as constitutional as the existing contracts for the same purpose.

It might be expedient that all persons accepting appointments on which human safety is so greatly dependant, as those of steamboat master, or railway conductor, or engineer, should be subjected to a special law, making a dereliction of duty criminal.

It has been urged that the proposed innovation would open a doorway to corruption. If this be true, it is equally true that it will be a substitute for a multitude of small doorways less subjected to public scrutiny.

Every good is more or less pregnant with evil; but is there any other plan besides that herein described by which the Government, in the performance of a constitutional duty, can get out of leading strings, or by which the railway companies can generally obtain means to double their tracks, so as to prevent the mutilation or death consequent to the existing deficiency?

The Baltimore and Ohio railway is a national highway of high importance, yet not long since an attempt to obtain a loan to double the track on that great thoroughfare was unsuccessful. Since that failure the Corporation of the city of Baltimore offered to make the requisite loan, but accompanied by a condition that through tickets should not be issued coupled with this proviso. The company refused to accept of the loan.

The fact that this attempt to subject a national conveyance to local interests places in a strong light the importance that such pecuniary assistance should be afforded by the National Government which cannot be as liable to be biased by local interests as State Goverments or municipal corporations.

MAIL ROBBERY.—The mail was robbed on the 25th of last month between Glasgow and Scottsville, Kentucky. Among the packages missed was one mailed at Louisville, containing $3,000, and it is believed that other valuable packages were also in the mail. A man named *Graham*, occasionally employed upon the route, has been arrested as the robber. Some $1,800 were found in his possession.

FATAL ENCOUNTER.—A bloody affair occurred at Maysville (Ky.) on Saturday week. An assault was made or attempted by Mr. Charles Dobyns upon Mr. Richard H. Collins, editor of the Eagle, and the latter shot the former with a pistol. The wounded man survived but a very short time. This affair grew out of some remarks in a late war of words between the Maysville Eagle and a paper in Louisville.

NEW BOOKS.

CHRONICLES OF CARTAPHILUS, the WANDERING JEW. Edited by DAVID HOFFMAN, J. U. D., of Gottingen. London, BOSWORTH, 215 Regent street. Washington, MORRISON & Co.

A strange work this, and *condensed* into two thick volumes, octavo, numbering some twelve hundred pages, and abounding in the recondite theological lore of the Heathen, Jewish, Rabbinical, and Christian schools.

The source of the popular MYTH forming the subject of these volumes is traced to that passage in the New Testament:

"Verily I say unto you, there be some of them which stand here who shall not taste of death until they have seen the Kingdom of God come with power."

The first explicit and authentic mention of the Wandering Jew occurs in the Latin Works of Roger de Wendover, a Monk of St. Albans, who died in the year 1237. And Matthew of Paris, a Benedictine Monk of the same Monastery, confirms the statement, and relates that, at a great Episcopal Convocation at St. Albans in the year 1228, an Archbishop of Armenia Major also appeared and deposed through his interpreter (a Knight returned from the Holy Land) that he knew the Wanderer well, who had often held converse with him and eaten at his table. The cause of his terrific curse was thus explained: When the Jews were dragging JESUS forth to crucifixion, Cartaphilus, then a porter in the hall of Pilate, struck the Saviour with his hand, and in mockery said, "hasten, Jesus, why dost thou linger?" And Jesus, looking back, said to him, "I go, indeed, but thou wilt wait until I return." At the time of our Lord's crucifixion Cartaphilus was thirty years old, and when he attains the age of one hundred years always returns to the age of thirty; thus doomed to perpetual life in alternating between extreme age and renewed youth. After the death of Christ, and when the Catholic faith had gained ground, Cartaphilus was baptised by that Ananias who baptised the Apostle Paul, and then took the name of Josephus.

The Wanderer of Ages is a man of holy conversation, of circumspect demeanor, and awaits with fear the awful day of judgment. He refuses all gifts, being content with food and clothing; and rests his hope of salvation on the plea of having sinned through ignorance; and also on the last prayer of the Saviour, "Father forgive them, for they know not what they do."

Such is the substance of the history recorded by Matthew of Paris, who, as well as Roger de Wendover, makes no comment whatever on the statement of the Armenian Prelate.

The next notice of this singular personage occurs in the Chronicles of the Fourteenth Century, where he appears under the name of Isaac Lakedion. In the sixteenth century we find mention of the unhappy man, and a narrative of his famous interview with Cornelius Agrippa, the Magician. We next hear of him at Hamburg, and then at Strasburg; and thirteen years after he appeared in Brabant, where his person and manners are fully described in the far-famed *Brabantine Ballad*. In the year 1664 he was seen at Beauvais, in France, coming from mass; and he subsequently appeared at Venice, Naples, and Salamanca; and lastly at Brussels, on the 22d April, 1771.

"Thus ends this strange eventful history."

The editor of Cartaphilus is evidently a sincere Christian, well versed in Hagiology and in Mediæval Legends. He comments indignantly on the conduct of the French Novelist, *Eugene Sue*, who, when these Chronicles were nearly ready for press, thought fit to adopt a similar title, to the manifest disparagement of this veracious narrative.

The work of the French Pamphleteer is distinguished by loathsome immorality and abuse of all that is held sacred by good men; and it is matter of regret that two writers differing so widely on all other points should have united on one—the denunciation, to wit, of an order producing the most accomplished scholars and dauntless soldiers of the christian name.

A MONTH IN ENGLAND, by HENRY T. TUCKERMAN. New York, REDFIELD. Washington, TAYLOR & MAURY.

"Ye gods, annihilate but *time* and *space*," was once the modest prayer of an impassioned lover, eager to meet his future bride. And indeed the romantic wish appears in process of accomplishment in our day.

"So complete is the system of English railways," says Mr. Tuckerman, "that four weeks, judiciously appropriated, will enable the American in London to visit and explore a specimen at least of what is peculiar in the country, to become acquainted with a large rural domain, a manufacturing district, an ancient castle, a watering place, and a venerable seat of learning." And the classic author has availed himself—"with rapid wing and eagle eye"—of all the advantages of locomotive flight, to sketch scenery either associated with historic recollections or embalmed and hallowed in poetic numbers.

THE FLUSH TIMES OF ALABAMA and MISSISSIPPI, by JOS. G. BALDWIN. New York, APPLETON & Co. Washington, TAYLOR & MAURY.

One of the best things of the season. Portraits drawn, *con amore*, of bench and bar, where prominently figures our old acquaintance, Simon Suggs, Esq. We quote the conclusion of a *case*:

"To this indictment Patrick pleaded 'not guilty,' and, the jury being in the box, the States' Solicitor proceeded to call Mr. Furkisson as a witness. With the utmost innocence Patrick turned his face to the court and said, 'Do I understand yer honor that Misther Furkisson is to be a witness fornent me agin?' The Judge said, drily, it seemed so. 'Well, thin, yer honor, I plade guilty sure, an' if yer honor plase, not becase I *am* guilty, for I'm as innocent as yer honor's sucking babe at the brist, but jist on the account of saving Misther Furkisson's *sowl*.'"

The LONDON QUARTERLY for 1853 comes to us freighted with its varied stores of sterling literature. This periodical is the great conservative organ of England, and the exponent of the political and religious orthodoxy of her establishment—a church adorned by the learning of her fair "Twin Sisters," distinguished by her contempt of sectaries, and admired for her surpassing wealth. LEONARD, SCOTT & Co., New York. TAYLOR & MAURY, Washington. Q.

THE PHYSIOLOGY OF TASTE, *or Transcendental Gastronomy*, translated from the French of BRILLAT SAVARIN. Philadelphia, LINDSAY & Co.

A pleasant science this of Gastronomy, and exquisite caterers its French professors. Unlike the repulsive studies of "lean and wasteful learning," denounced by the British Dramatist, the pursuits of this science are fascinating in prospect, and in fruition soothing, satisfactory, and eminently conducive to the well-being of the inward as well as of the outward man.

Political gastronomy has, in fact, been elevated to the dignity of a State science. From the times of Herodotus even to our day the most important operations of Government, of peace and of war, have been discussed and arranged at dinner-parties. Entertainments have long become identified with great national measures, and the fate of nations is often decided at a banquet, the terms of a treaty depending on the quality of the wines, and questions of peace or war settled by the artistic combinations of his excellency's cook.

The subject is spread out in all its ramifications, and treated with that seriousness due to the importance of the gastronomic functions, and interspersed throughout with salutary "peptic precepts."

Thirst being the attendant of the nutritive esculents, the topic of liquors is also discussed scientifically, and the comparative merits of the various wines treated with a gravity and deliberation befitting the decisions of an arbiter in chancery.

"Monsieur," said an old marquise to me one day, "which do you like best, Burgundy or Bordeaux?" "Madame," said I, "I feel so great an interest in the question that I must postpone my decision until after a week's experimental examination."

THE BLACK-WATER CHRONICLE. REDFIELD, New York.

"A right merrie" narrative of the sayings and doings of five adventurous gentlemen, past the meridian or military age, who, in the summer of 1851, were tempted, in evil hour, to forsake the domestic comforts of their hearths and cellars, and the endearments of their sweet wives, in order to explore the land of Canaan, (so called, we presume, by antiphrasis,) situate and being in Randolph county, Virginia; the modern Canaan, by the way, being a land flowing with panthers, bears, wolves, elk, deer otter, &c.

The way in which these staid citizens "camped out," dozing *sub dio* on the bare ground; how they managed their cart culinary, a lone frying-pan, destined to receive the quarters of vagrant racoons, as well as the streams of white milk (as Homer has it) drained from the udders of stray cows; how they lost their way in the woods, and the loss of patience and of temper consequent thereon; how their digestion gradually improved from appetite to hunger and from hunger to famine; their ultimate deliverance from the land of Canaan, and the way they astonished the young hostess of the first log-cabin by feats of deglutition hitherto unequalled and unseen—all this and much more are quaintly and quietly set forth by the accomplished author, "THE CLERKE OF OXENFORDE." The work is embellished with exquisite vignettes.

HUFELAND'S ART OF PROLONGING LIFE. Edited by ERASMUS WILSON, F. R. S. Boston, TICKNOR, REED, and FIELDS.

No analysis may exhibit the varied contents of this curious book, the result of extensive learning and German research.

It is divided into three parts: Duration of human life in the various ages of the world; means which shorten life; and means which prolong life. The Macrobiotic Art, forming the subject of this interesting work, differs from the art of medicine in this, that the object of the one is *health* and that of the other *long life*.

The whole treatise, indeed, appears to present facts and examples tending to sustain the theory of a late eminent French physician, "that to the human heart are assigned a limited number of pulsations, and that the secret of long life consists in the use of means tending not to accelerate, but to retard the rate of those pulsations."

We know of no book exhibiting dissuasives more cogent, more philosophical, from the appliances of stimulating food and drink; nor arguments more strongly justifying the salutary precept of the great Apostle, "Be ye temperate *in all things*."

On sale by TAYLOR & MAURY. Q.

MEMOIR OF THE LIFE AND CHARACTER OF THE RT. HON. EDMUND BURKE, by JAMES PRIOR, in 2 vols. Boston, published by Ticknor, Reed, & Fields; sold by TAYLOR & MAURY, Washington.

Prior's Life of Burke has long been regarded a standard work. It has now been re-written and greatly enlarged, and we have here specimens of Burke's poetry and letters, and an estimate of his genius and talents compared with those of his great contemporaries. Prior's style is formal and wanting in the attractiveness with which Moore would doubtless have invested a memoir of Burke; but then he is always respectable, and the more reliable. He has collected all the anecdotes which can be regarded authentic illustrative of Burke's private and public life. It was the opinion of Lord Byron that Burke and Lord Chatham were the only English orators who approached perfection. If the contest for superiority lies between these two great men, at this day and in this country the preference would be given to Edmund Burke. He has been regarded by eminent men as equal to Cicero in dialectic, in imagery, in occasional splendor, and in general information; excelling him in political wisdom and the application of history and of philosophy to politics. What distinguishes Burke are the countless lessons of civil and moral wisdom, his sudden transitions from the grand to the gay, from sublimity to pleasantry, and his admixture of coarse expressions even in his most splendid passages. The effect of these was sometimes great, but they deformed and disgusted. Wilkes used to say, "the Venus of Phidias was so lovely that the Athenians called her the Venus of Roses; lovely, too, speaking generally, is the Venus of Burke, but she is sometimes the Venus of Whiskey."

The narrative of the death of this great man will bring to the mind of the reader the closing scenes of Daniel Webster. Both were alike conscious of the inevitable result of their diseases; the one retired to Beaconsfield the other to Marshfield. The closing scenes of both were alike suited to the greatness of mind displayed through life, without levity, without ostentation, full of natural grace and dignity. No library containing the works of Burke but should be possessed of his life by James Prior.

LIFE OF BENJAMIN ROBERT HAYDON, Historical Painter, from his Auto-Biography and Journals, edited and compiled by TOM TAYLOR, of the Inner Temple, &c. New York, published by Harper & Brothers. Washington, sold by TAYLOR & MAURY, in 2 vols.

This is indeed what the editor says of it, a curious piece of psychological revelation, and a not uninteresting though mournful picture of artist life. Haydon left twenty-seven folios, from which Mr. Taylor has selected the most attractive incidents, the most amusing anecdotes, the best pen-and-ink sketches drawn by Haydon of the great men with whom he was brought into habits of familiar intercourse by the ties of friendship, as Wilkie, Charles Lamb, Leigh Hunt, Wordsworth, Hazlitt, Sir Walter Scott, Fuseli, Keats; or, by his art and his miseries, as Duke of Wellington, Sir Robert Peel, Jeffery, Belzoni, Vernet, and many others; for, as he says in the introduction of his auto-biography, "I have known and associated with many remarkable men." Poor Haydon died a victim to disappointment; his exclusion from all share in the decoration of the new Houses of Parliament broke his heart. We have rarely met with a book of such interest as this. Indeed, it could not but be attractive; for these pages contain the sketches of an artist in the first walk of his art, of himself and his sitters, and these the greatest, the wisest, and the best of England's nobility and authors.

"Commentaries on the Laws of the Ancient Hebrews," by REV. E. C. WINES, D. D.

We have for some time desired to notice somewhat at length this interesting work, which has received so much commendation from distinguished persons at home and abroad. We are not yet able to execute our purpose, but are glad to be able to do what is much better, that is, to give the following letter recently addressed by the Hon. HORACE BINNEY, of Philadelphia, to Dr. WINES. There is no man in the country whose judgment upon a work like the one under consideration is of more value than that of Mr. BINNEY's:

PHILADELPHIA, DECEMBER 19, 1853.

DEAR SIR: I have read a second time, and with renewed pleasure, your Commentaries on the Laws of the Ancient Hebrews; and I must add that the work has been as productive of instruction and satisfaction to my family. I know of no book that is comparable to it, in point of instruction and attraction, on the subject; that in its three relations, historical, political, and religious, is of more importance and general interest. Of the learning exhibited in the work I must leave others to speak; but the sources seem to have been faithfully explored, and, as far as I have been able to follow them, candidly represented. The political parallel drawn between the Government of the Hebrews and modern representative Governments, our own especially, is new to me, and is exceedingly well drawn and sustained; and if to its very pure style I may add the conservative temper it manifests in regard to the republican features of our Constitution, you will understand why the whole work has made so deep an impression upon me. I am very much obliged to you for it, as I think all the reading men in the country must feel themselves to be. I hope that the remaining books promised in the preliminary chapter will not be long deferred, as my time is probably short, and my desire to profit by them strong.

I remain, very respectfully, yours,
HOR. BINNEY.

Rev. E. C. WINES, D. D.
East Hampton, Long Island.

A RELIC OF THE OLDEN TIMES.—The Albany Express wheels out an antique spinning wheel, which may be seen at the New York State Geological Rooms in Albany, and thereon spins a long and interesting tale. It was formerly the property of Mrs. Eleanor Fry, a Quaker lady of East Greenwich, (R. I.,) from whose possession it passed into that of E. H. Pease, of Albany. In a letter to Mr. Pease Mrs. Fry says that the wheel was brought to her father's house in East Greenwich from Narragansett in 1754, at which time it had been in America near a hundred years. In 1777 she spun upon it a piece of lawn handkerchiefs, twelve in number, which she thinks were quite equal to any thing imported from England. The ladies of that day were emulous to excel in good works as well as words, she says, and were so patriotic withal that they chose the fabrics of their own country, and toiled with their own hands to spin lawn for their own dresses. She says that in 1789 forty-eight patriotic ladies, herself being of the number, celebrated the adoption of the Federal constitution by assembling at the Court-house in East Greenwich, with their own wheels, their own flax, and for their own purposes spinning 173 skeins of linen yarn between sunrise and sunset. One lady spun seven skeins and one knot, two skeins being an average days' work. What stories of courting, comfort, and connubial bliss this relic of by-gone ages and customs could disclose if it were endowed with the faculty of utterance, the venerable Mrs. Fry does not see fit to tell us, if she knows.—*Springfield Republican.*

On the morning of the 2d instant a comet was discovered by Mr. KLINKERFUES, of the Gottengen Observatory, on the border of the constellation Perseus, near the foot of Andromeda. At 4 o'clock A. M. on the 3d its right ascension was in 1 hour 37 minutes 20 seconds, and its declination 51 degrees 37 seconds north. The diurnal motion in right ascension was 2 minutes towards the west, and in declination 1½ degrees towards the south.

MISCELLANEOUS.

A bill is now in discussion before the Senate of Tennessee to apply to the people for their wishes on the subject of the prohibition of liquor selling. The act has been so worded that no legislative decision is dependant upon the application, in order to avoid the constitutional objection urged in other States.

The wife of a German hotel-keeper at Terre Haute, Indiana, named Dietz, was so frightened one day last week by a drunken man drawing a pistol on her husband that she fell into a swoon, from the effects of which she died the day following.

A recent report of the Georgia Central Railroad Company shows a gratifying increase in the business and profits of the road, which speaks well for its management. The company have now a reserve fund of $322,398 95; and yet its dividends are at the rate of 8 per cent. per annum.

Experiments for the making of paper from the cane reed of the Southern States and from white pine shavings have been successful. They were tried in Baltimore.

The Committee on Patents in Congress have unanimously reported in favor of the extension of Samuel Colt's patent for seven years, reserving to the Government of the United States the right to make and manufacture the arms in all of their own armories for military and naval purposes. The reasons for granting it are stated to be that the inventor has not had the use of his patent in a profitable degree.

In Washington County Court (Md.) Joshua Anderson, aged 22 years, has been convicted of murder in the second degree for killing a slave belonging to Mrs. Joseph Sprigg, during an affray, in June last, on the Chesapeake and Ohio Canal, and been sentenced to the penitentiary for eighteen years.

At the latest date the yellow fever still lingered in Brownsville, Texas, although its violence had considerably abated. The soldiers in the garrison were the principal victims, most of them being unacclimated. There had been nineteen deaths in the garrison from the 15th of November to the 3d December, of which four were non-commissioned officers. The total number of deaths in the garrison during the epidemic is set down at forty.

MR. ANTHONY TEN EYCK, of Albany, was killed on Wednesday night by being thrown from a carriage which he was driving on the Troy road. The night was dark, and the accident was the effect of a collision with another carriage, containing two gentlemen, both of whom were also thrown out, but not seriously hurt.

A reporter of the Cincinnati markets states that "hogs are firm." That is stating the fact a little too mildly; the firmness of the porcine animal amounts to the most cursed obstinacy.

An enterprising young man from the West lately brought into Milwaukie four elks, which he has trained for harness, and offers for sale.

A company of five men shot nine hundred pigeons in one evening at the great roost in Tishemingo county, Mississippi; and John Ross and William Duncan shot and killed each other in a fight on the occasion.

CINCINNATI WINE.—One of the editors of the Albany Journal writes that he has recently been into the cellar of Mr. Longworth at Cincinnati, where he found 150,000 bottles, several hundred boxes, and 200,000 gallons of unbottled wine. His champagne and still wines find a ready sale, the former at $12 per dozen. During the last summer, in consequence of the unskilfulness of a man in charge of one of the cellars, Mr. L. lost 40,000 bottles of champagne.

Benjamin Buckingham, of Northfield, (Ct.) was one of the earliest California adventurers. He returned in due time with fifty thousand dollars in gold. He was not content. He made a second visit to the land of gold and golden dreams, and returned penniless. Last week he was found dead in a mountain cave. His revolver, which was found by his side with one barrel discharged, and a small wound in the head, told the melancholy story. His age was twenty-seven.

THE FRAUDS OF SPIRITUALISM.—Some of the "mediums" are driving a brisk business in their frauds upon the weak-minded individuals who have faith in this preposterous delusion. Scarcely a week passes that some complaint of swindling is not made by those who are victimized by the sharpers who practice it. We see by the New York papers that a very respectable woman, of Brooklyn, was induced to pay a colored "medium," who practices also as a doctor, several large sums of money to get the "spirits" to tell the successful numbers of some of the lotteries. The mediums having failed to give the lucky numbers—none but an idiot would expect them to do so, for they would scarcely give for fifty or a hundred dollars knowledge which would put them in possession of thousands—were arrested for fraud, and have had an examination before the police court. Rascality always flourishes where credulity is common. One of the sharpers very coolly remarked to the Judge: "Why, I can bring a dozen men and women before you who have made money through us in that manner."

THE THOMPSON WILL.—The will of Abraham G. Thompson, which has been contested by his grand-children for the last two years, on the ground of invalid execution, has finally been sustained by the surrogate of the county of N. York. The point upon which the case turned was alleged insanity or incapacity of the testator, as indicated by his superstitious belief in the power of charms, magic, divining rods, the philosopher's stone, the water of life, and various other supernatural and natural modes of finding hidden treasure, making gold, and curing diseases. Some curious testimony was offered, going to show that decedent was quite a student of magic, natural and supernatural, and that his ideas seemed to have been borrowed from books, entertained more as a matter of speculative probability than serious belief.

Of the 240 convicts confined in the Tennessee Penitentiary, 38 were temperate before sentence and 202 intemperate, and 127 were drunk when they committed crime. There are three who have had a classical education, seven a common English education, 105 who can read and write, 52 who can read only, and 63 who can neither read nor write. These statistics show very clearly that intemperance and the want of education are the two most fruitful sources of crime.

The cotton factory near the Railroad Depot at Fredericksburg, (Va.) owned by Messrs. F. & J. W. Slaughter, was burnt to the ground on Monday night. The fire originated in the engine-room. The shingle-roof was entirely consumed. Strange to say, the picker-room alone was saved and a small portion of the machinery. Loss estimated at $22,000. About fifty hands were employed in the factory.

The value of the articles which have passed over the Erie Canal the present year is estimated at $39,626,362, being $5,242,443 more than the value of the freights last year.

THE FIRST SNOW-STORM.—It is a remarkable fact that no snow-storm had occurred in Boston or vicinity this season until yesterday afternoon, the 26th of December. In conversation with that venerable personage the "oldest inhabitant," we learn that he has never known a season, until the present, when no snow has fallen until after Christmas. This unusual fact furnishes another illustration of the truth of an assertion often made, that the winters in New England are gradually shortening, even if they do not become milder in their character.

[*Boston Journal.*

Benjamin Buckingham, of North Milford, Connecticut, committed suicide by shooting himself with a pistol last week, in consequence, as is supposed, of having lost a large fortune which he had accumulated in California.

A model return upon a writ was recently made by a deputy sheriff in Morgan county, Indiana. It was: "Sarved the within but was fit with brick-bats by the woman so that I could'nt sarve it."

A young woman named Ferris was shockingly injured at the Walcott Mill, Pawtucket, on Saturday afternoon. She was caught in the upright shaft, and carried around till the wheel could be stopped. It is thought that she may recover.

The District Court of Ohio has granted an injunction restraining the collection of the State tax from the banks at Cleveland until the validity of the "crow-bar law" is tested in the Supreme Court of the United States.

STEAMBOAT EXPLOSION AND LOSS OF LIFE.—At Charleston, about eight o'clock on Thursday morning, the whole eastern part of the city was startled and shaken by an explosion that was like an earthquake. The steamer Marlborough, bound for Cheraw, just as she left her berth at North Atlantic wharf, blew up, rending the boat in pieces, and scattering her fragments far and wide. The larger portion of the boiler was thrown a distance of a hundred yards, swept through the front of the large brick cotton shed on the wharf, and lodged in the cotton. Portions of the boat, we understand, fell beyond the market. The wreck burst out in flames immediately after, and burnt to the water's edge.

But the most terrible part remains to be told. The precise number of persons on board we had not the means of ascertaining. The captain reported to the custom-house a complement of twenty officers and men attached to the boat. Of these but seven are known to have been saved, three of whom were more or less injured. The scene was shocking beyond description, and we should only revolt the reader by giving the details. All the officers of the boat, except the second engineer, were killed, and this makes it next to impossible to obtain authentic particulars. There may have been passengers, but it is believed there were none.—*Mercury.*